

a metal oxide AO_x , wherein, in the composite oxide $(M1\ M2)O_3$, M1 is at least one element selected from elements of Group IIA of the Periodic Table and Group IIIA except for La and M2 is at least one element selected from elements of Group IIIB, Group IVA, Group VA, Group VIA, Group VIIA, and Group VIII of the Periodic Table, the metal oxide AO_x having a melting point of at least 1400°C , and a resistance (1000°C) of the AO_x alone in the shape of the thermistor is at least 1000Ω .

2. (Amended) A thermistor having durability against a reducing atmosphere as set forth in claim 1, wherein the molar fraction of the composite oxide $(M1\ M2)O_3$ in the mixed sintered body is a and the molar fraction of the metal oxide AO_x is b, a and b satisfy the relations $0.05 \leq a < 1$, $0 < b \leq 0.95$, and $a + b = 1$.

A' cont'd 3. (Amended) A thermistor having durability against a reducing atmosphere as set forth in claim 1, wherein M1 in the composite oxide $(M1\ M2)O_3$ is at least one element selected from Mg, Ca, Sr, Ba, Y, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Yb, and Sc and M2 is at least one element selected from Al, Ga, Ti, Zr, Hf, V, Nb, Ta, Cr, Mo, W, Mn, Tc, Re, Fe, Co, Ni, Ru, Rh, Pd, Os, Ir, and Pt.

4. (Amended) A thermistor having durability against a reducing atmosphere as set forth in claim 1, wherein A in the metal oxide AO_x is at least one element selected from B, Mg, Al, Si, Ca, Sc, Ti, Cr, Mn, Fe, Ni, Zn, Ga, Ge, Sr, Y, Zr, Nb, Sn, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Hf, and Ta.

5. (Amended) A thermistor having durability against a reducing atmosphere as set forth in claim 1, wherein the metal oxide AO_x is at least one metal oxide selected from MgO , Al_2O_3 , SiO_2 , Sc_2O_3 , TiO_2 , Cr_2O_3 , MnO , Mn_2O_3 , Fe_2O_3 , Fe_3O_4 , NiO , ZnO , Ga_2O_3 , Y_2O_3 , ZrO_2 , Nb_2O_5 , SnO_2 , CeO_2 , Pr_2O_3 , Nd_2O_3 , Sm_2O_3 , Eu_2O , Gd_2O_3 , Tb_2O_3 , Dy_2O_3 , Ho_2O_3 , Er_2O_3 , Tm_2O_3 , Yb_2O_3 , Lu_2O_3 , HfO_3 , Ta_2O_5 , $2MgO \cdot 2SiO_2$, $MgSiO_2$, $MgCr_2O_4$, $MgAl_2O_4$, $CaSiO_3$, $YAlO_3$, $Y_3Al_5O_{12}$, Y_2SiO_5 , and $3Al_2O_3 \cdot 2SiO_2$.

6. (Amended) A thermistor having durability against a reducing atmosphere as set forth in claim 1, wherein M1 in the composite oxide $(M1\ M2)O_3$ is Y, M2 is Cr and Mn, A in the metal oxide AO_x is Y, and the mixed sintered body $(M1\ M2)O_3 \cdot AO_x$ is $Y(CrMn)O_3 \cdot Y_2O_3$.

7. (Amended) A thermistor having durability against a reducing atmosphere as set forth in claim 1, including at least one of CaO , $CaCO_3$, SiO_2 , and $CaSiO_3$ as a sintering aid.

8/13. (Amended) A temperature sensor comprised of a thermistor having durability against a reducing atmosphere as set forth in claim 1.

REMARKS

Upon entry of this amendment, claims 1-13 are pending. Claims 1-7 and 13 have been amended for clarity and to correct minor informalities noted in the Office Action.